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PATENT & TRADEMARK OFFICE
JUL 14 2006
LAP79

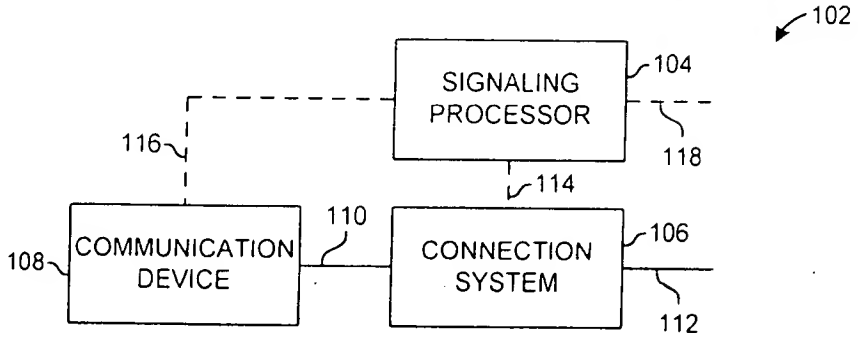

FIG. 1

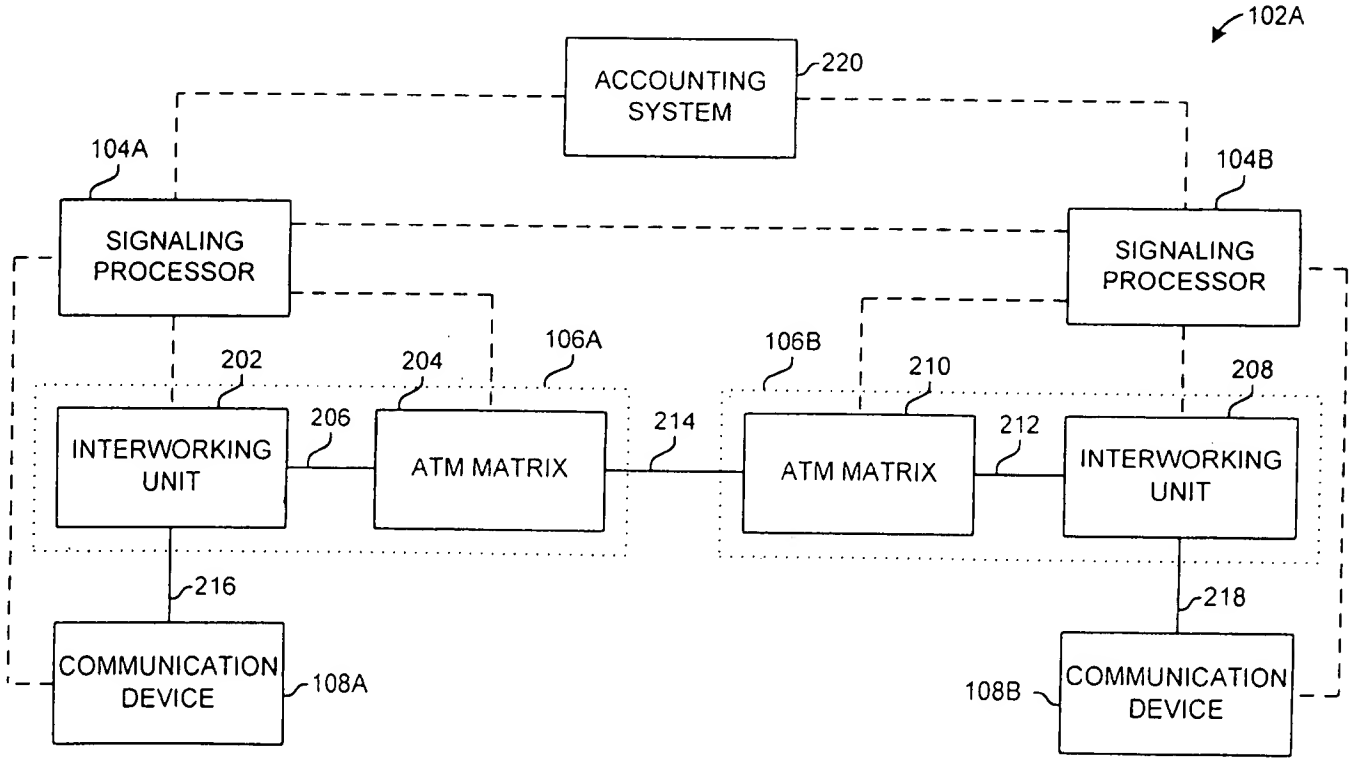

FIG. 2

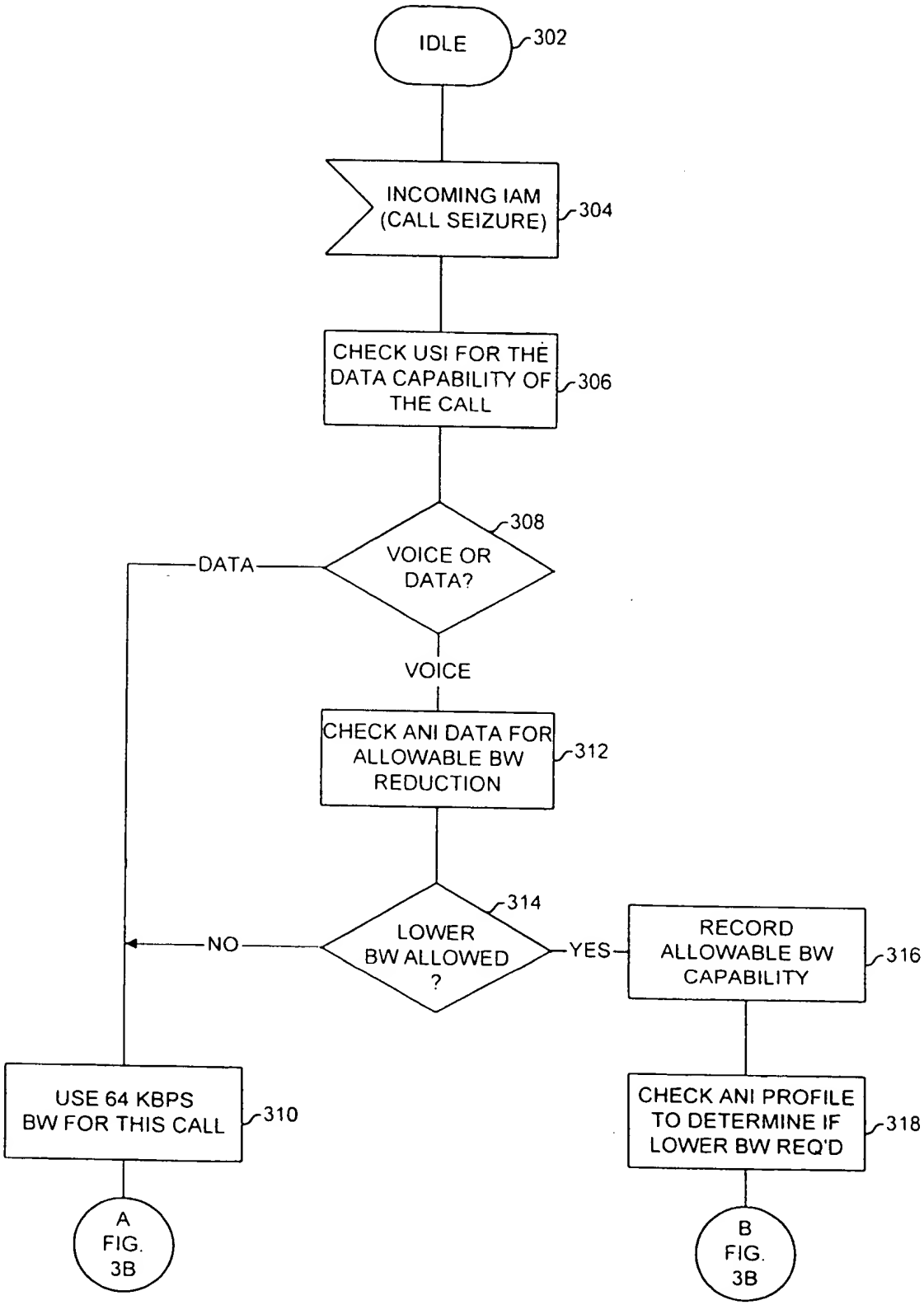
IDLE
302
INCOMING IAM (CALL SEIZURE)
304
CHECK USI FOR THE DATA CAPABILITY OF THE CALL
306
308
VOICE OR DATA?
DATA
VOICE
CHECK ANI DATA FOR ALLOWABLE BW REDUCTION
312
314
LOWER BW ALLOWED ?
NO
YES
RECORD ALLOWABLE BW CAPABILITY
316
USE 64 KBPS BW FOR THIS CALL
310
CHECK ANI PROFILE TO DETERMINE IF LOWER BW REQ'D
318
A FIG. 3B
B FIG. 3B

FIG. 3A

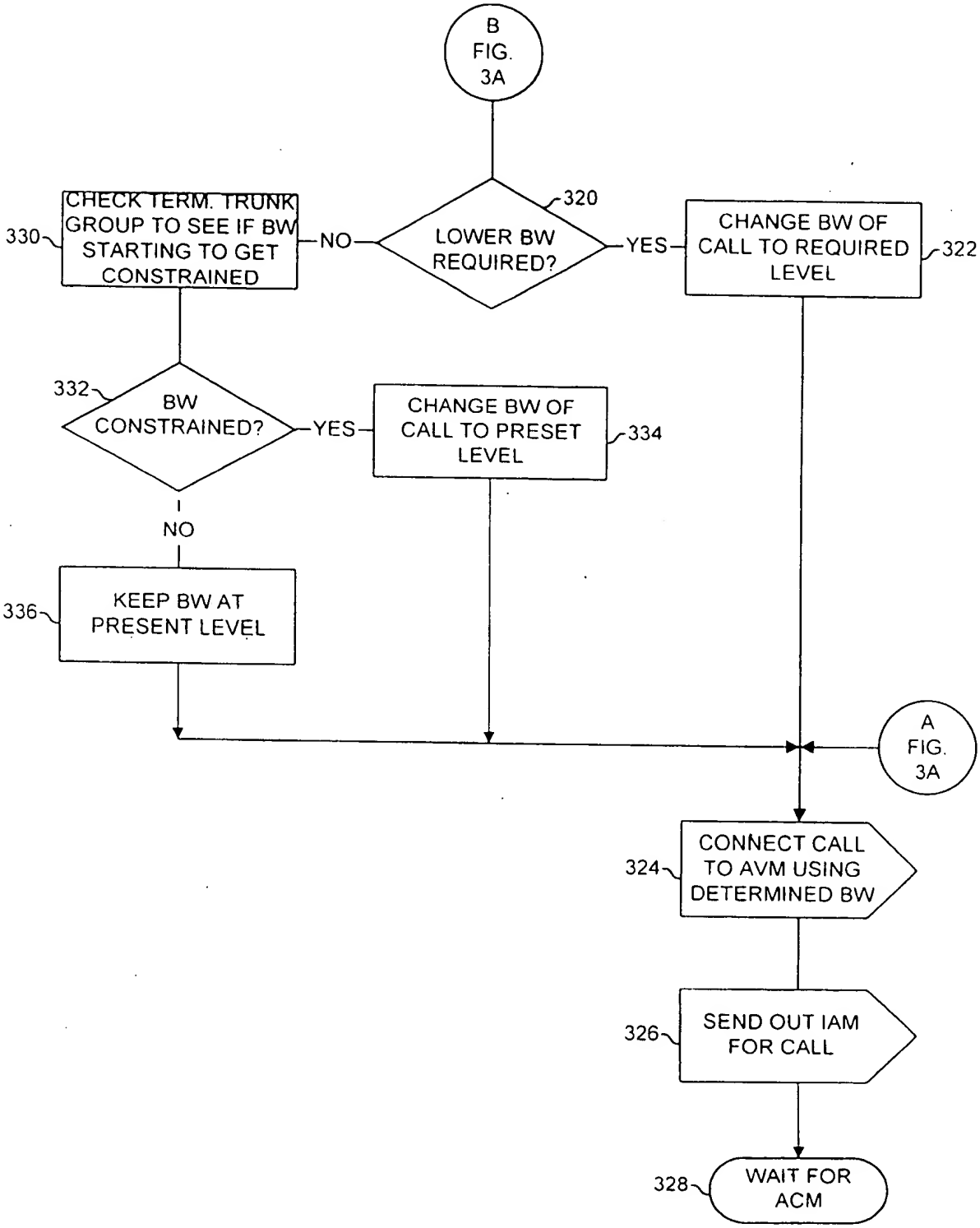
B
FIG.
3A
320
LOWER BW
REQUIRED?
NO
YES
CHANGE BW OF
CALL TO REQUIRED
LEVEL
322
330
CHECK TERM. TRUNK
GROUP TO SEE IF BW
STARTING TO GET
CONSTRAINED
332
BW
CONSTRAINED?
YES
CHANGE BW OF
CALL TO PRESET
LEVEL
334
NO
336
KEEP BW AT
PRESENT LEVEL
A
FIG.
3A
324
CONNECT CALL
TO AVM USING
DETERMINED BW
326
SEND OUT IAM
FOR CALL
328
WAIT FOR
ACM

FIG. 3B

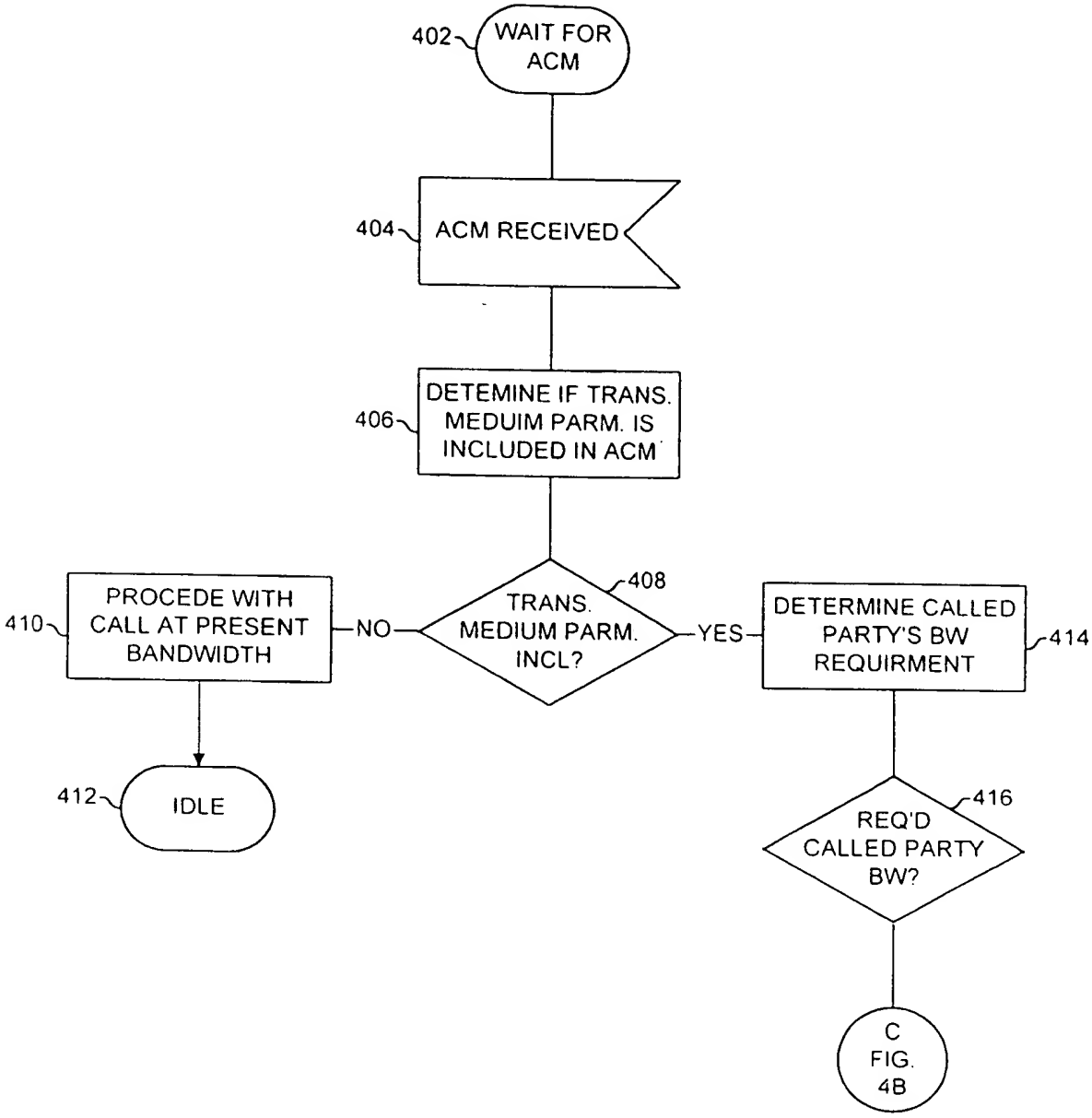
402
WAIT FOR ACM
404
ACM RECEIVED
406
DETEMINE IF TRANS. MEDUIM PARM. IS INCLUDED IN ACM
408
TRANS. MEDIUM PARM. INCL?
NO
YES
410
PROCEDE WITH CALL AT PRESENT BANDWIDTH
412
IDLE
414
DETERMINE CALLED PARTY'S BW REQUIRMENT
416
REQ'D CALLED PARTY BW?
C
FIG. 4B

FIG. 4A

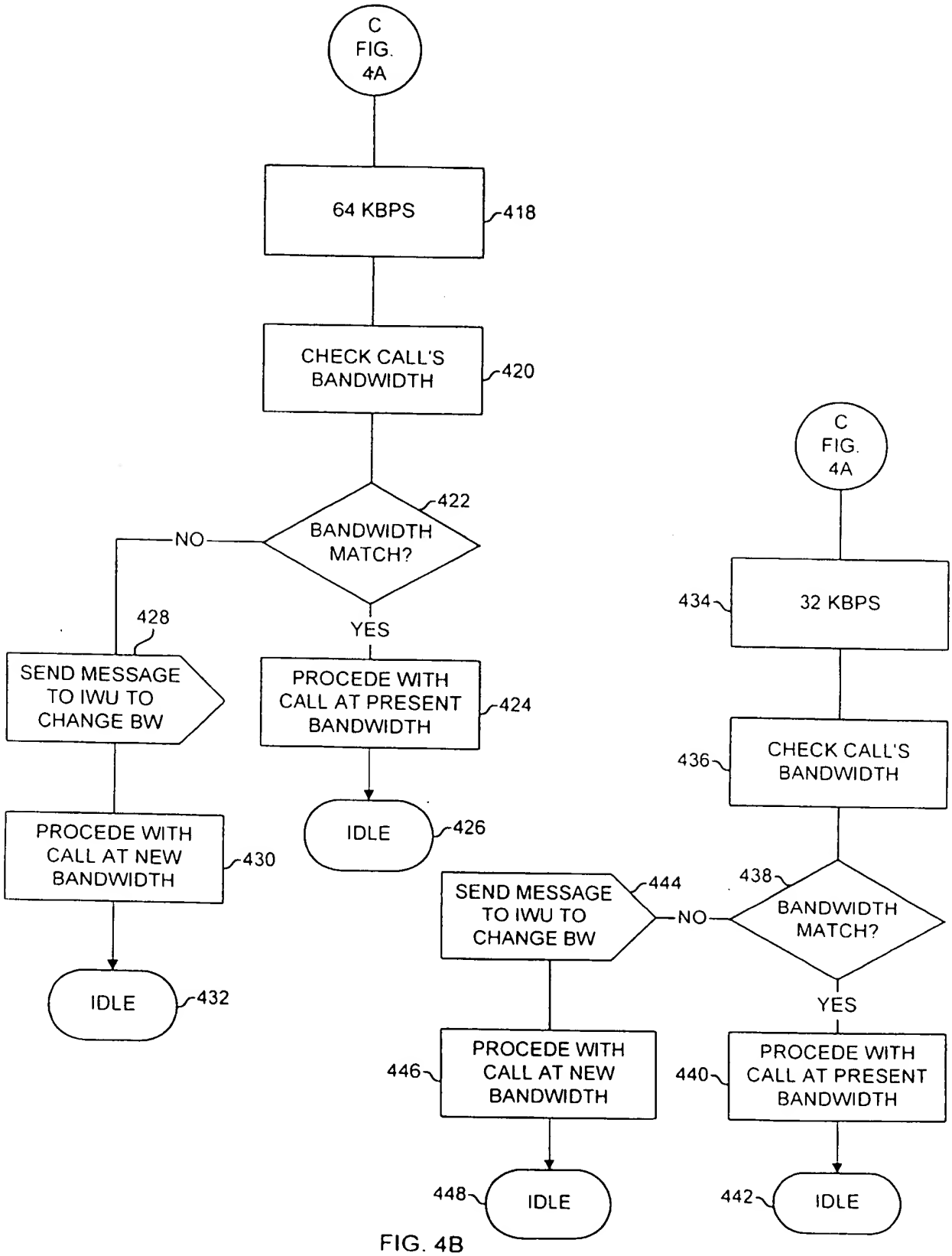
C FIG. 4A
64 KBPS
418
CHECK CALL'S BANDWIDTH
420
BANDWIDTH MATCH?
422
NO
YES
428
SEND MESSAGE TO IWU TO CHANGE BW
PROCEDE WITH CALL AT PRESENT BANDWIDTH
424
PROCEDE WITH CALL AT NEW BANDWIDTH
430
IDLE
426
IDLE
432
C FIG. 4A
434
32 KBPS
436
CHECK CALL'S BANDWIDTH
438
BANDWIDTH MATCH?
NO
YES
444
SEND MESSAGE TO IWU TO CHANGE BW
PROCEDE WITH CALL AT NEW BANDWIDTH
446
PROCEDE WITH CALL AT PRESENT BANDWIDTH
440
IDLE
448
IDLE
442

FIG. 4B

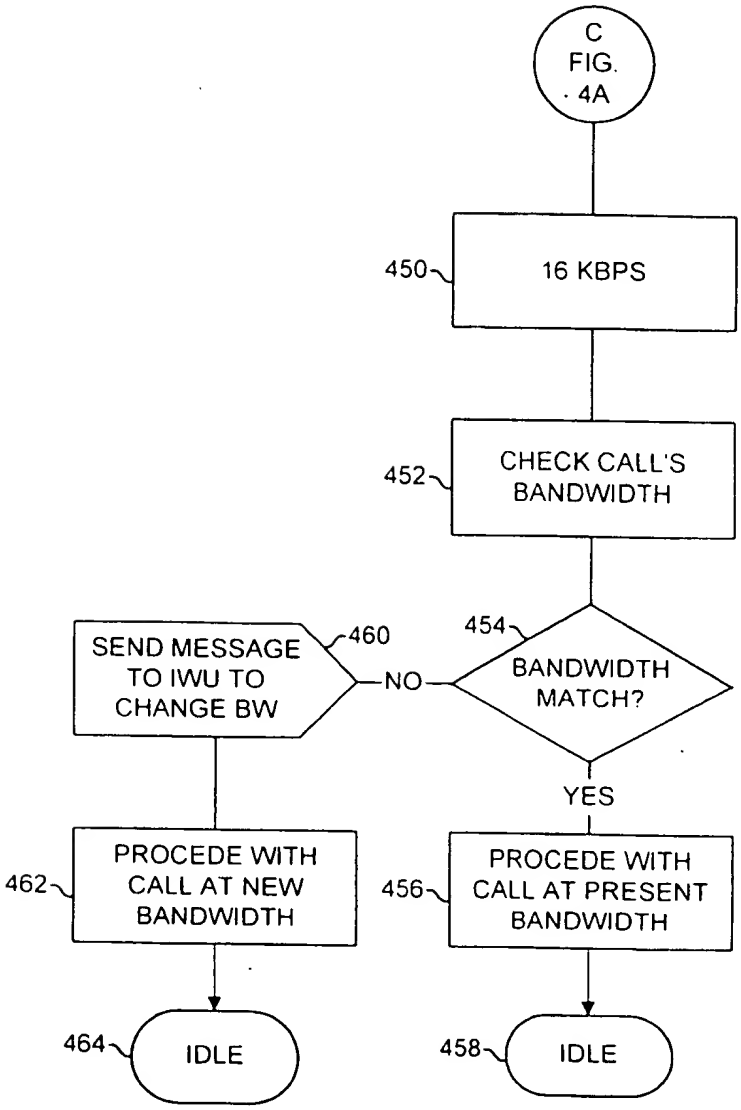
C
FIG.
4A
450
16 KBPS
452
CHECK CALL'S BANDWIDTH
454
BANDWIDTH MATCH?
NO
460
SEND MESSAGE TO IWU TO CHANGE BW
YES
462
PROCEDE WITH CALL AT NEW BANDWIDTH
456
PROCEDE WITH CALL AT PRESENT BANDWIDTH
464
IDLE
458
IDLE

FIG. 4C

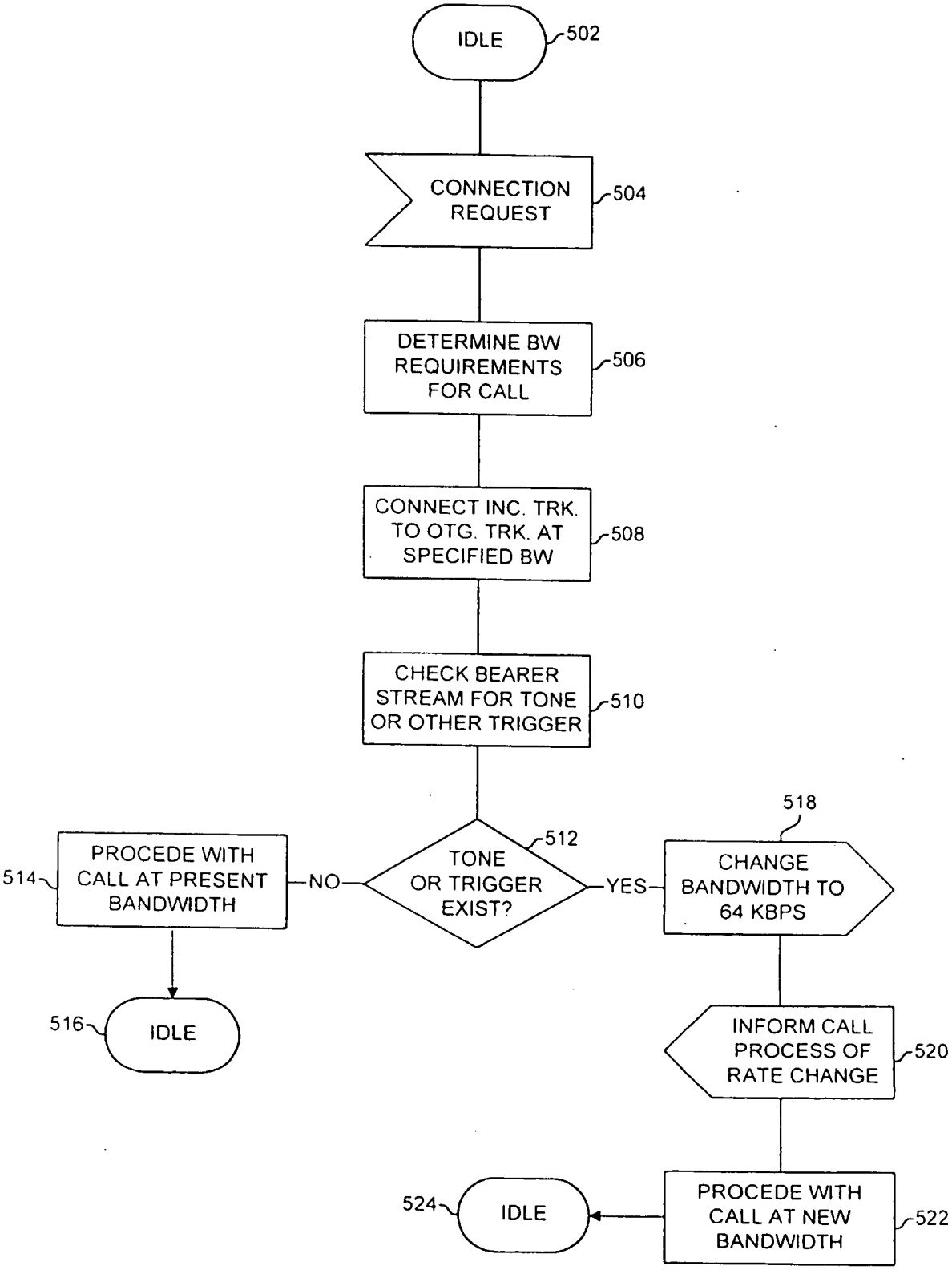
IDLE
502
CONNECTION REQUEST
504
DETERMINE BW REQUIREMENTS FOR CALL
506
CONNECT INC. TRK. TO OTG. TRK. AT SPECIFIED BW
508
CHECK BEARER STREAM FOR TONE OR OTHER TRIGGER
510
TONE OR TRIGGER EXIST?
512
NO
YES
PROCEDE WITH CALL AT PRESENT BANDWIDTH
514
IDLE
516
CHANGE BANDWIDTH TO 64 KBPS
518
INFORM CALL PROCESS OF RATE CHANGE
520
PROCEDE WITH CALL AT NEW BANDWIDTH
522
IDLE
524

FIG. 5

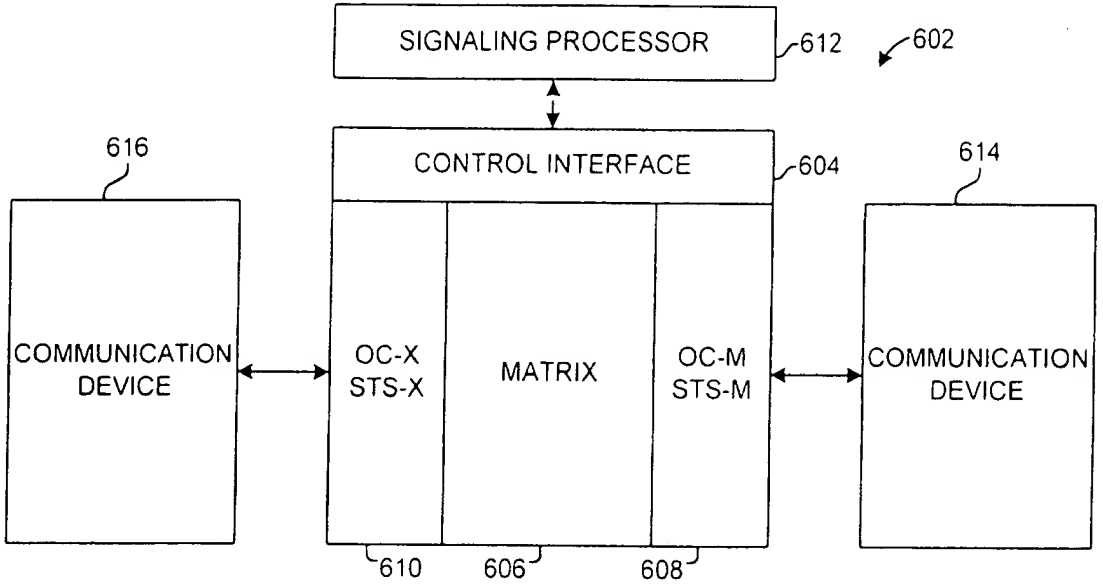
SIGNALING PROCESSOR
612
602
CONTROL INTERFACE
604
616
614
COMMUNICATION DEVICE
OC-X STS-X
MATRIX
OC-M STS-M
COMMUNICATION DEVICE
610
606
608

FIG. 6

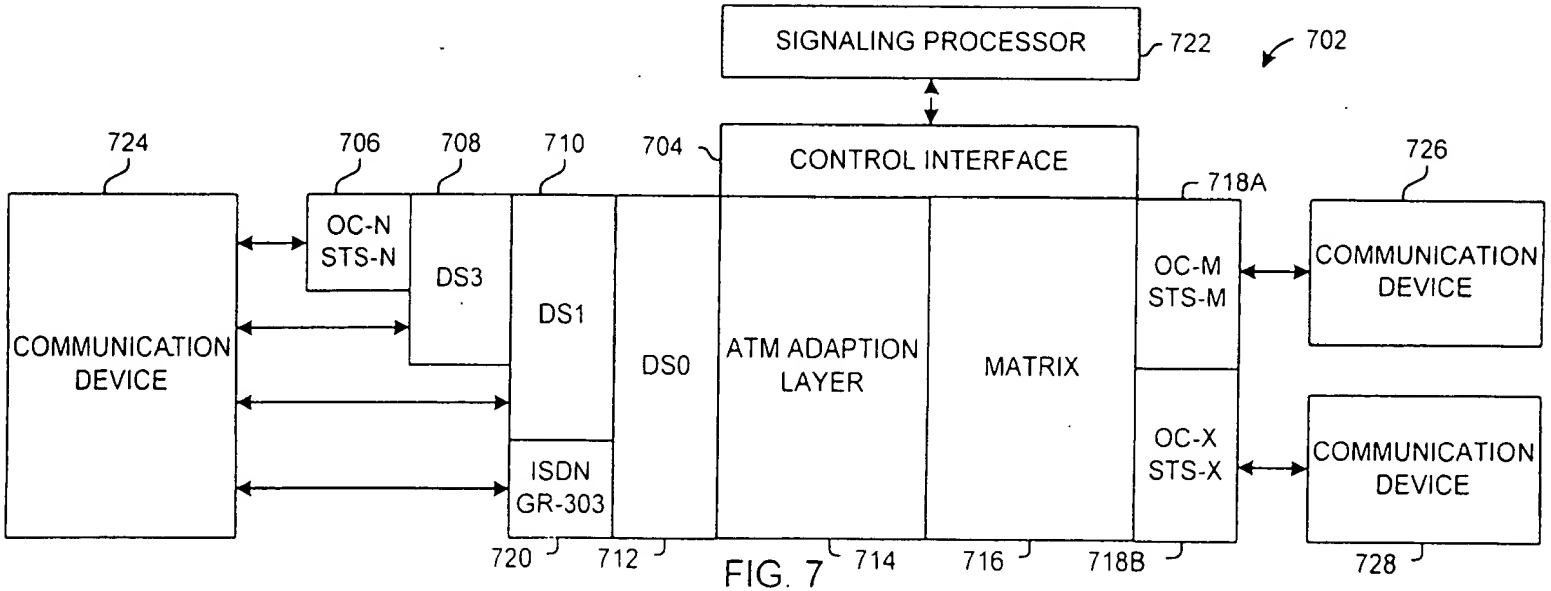
SIGNALING PROCESSOR
722
702
724
706
708
710
704
CONTROL INTERFACE
718A
726
OC-N STS-N
DS3
DS1
DS0
ATM ADAPTION LAYER
MATRIX
OC-M STS-M
COMMUNICATION DEVICE
COMMUNICATION DEVICE
ISDN GR-303
OC-X STS-X
COMMUNICATION DEVICE
720
712
714
716
718B
728

FIG. 7

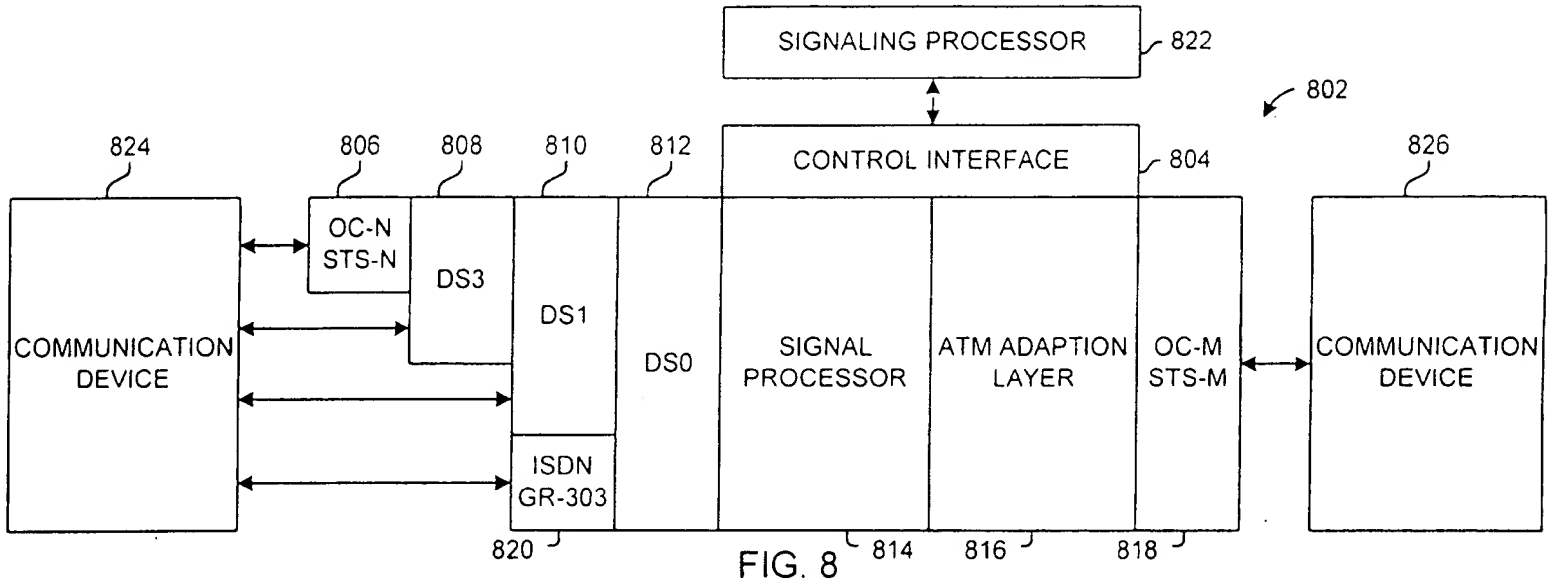
SIGNALING PROCESSOR
822
802
824
806
808
810
812
CONTROL INTERFACE
804
826
COMMUNICATION DEVICE
OC-N STS-N
DS3
DS1
DS0
ISDN GR-303
SIGNAL PROCESSOR
ATM ADAPTION LAYER
OC-M STS-M
COMMUNICATION DEVICE
820
814
816
818

FIG. 8

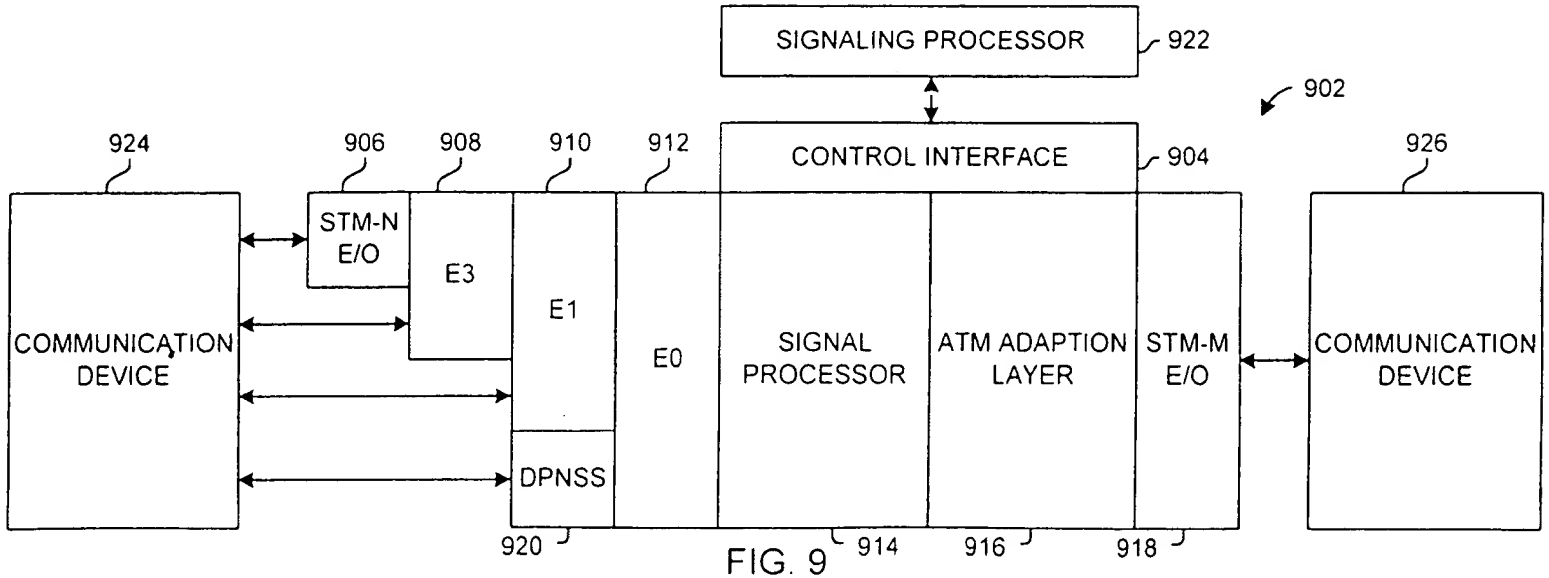
SIGNALING PROCESSOR
922
902
924
906
908
910
912
CONTROL INTERFACE
904
926
COMMUNICATION DEVICE
STM-N E/O
E3
E1
E0
DPNSS
SIGNAL PROCESSOR
ATM ADAPTION LAYER
STM-M E/O
COMMUNICATION DEVICE
920
914
916
918

FIG. 9

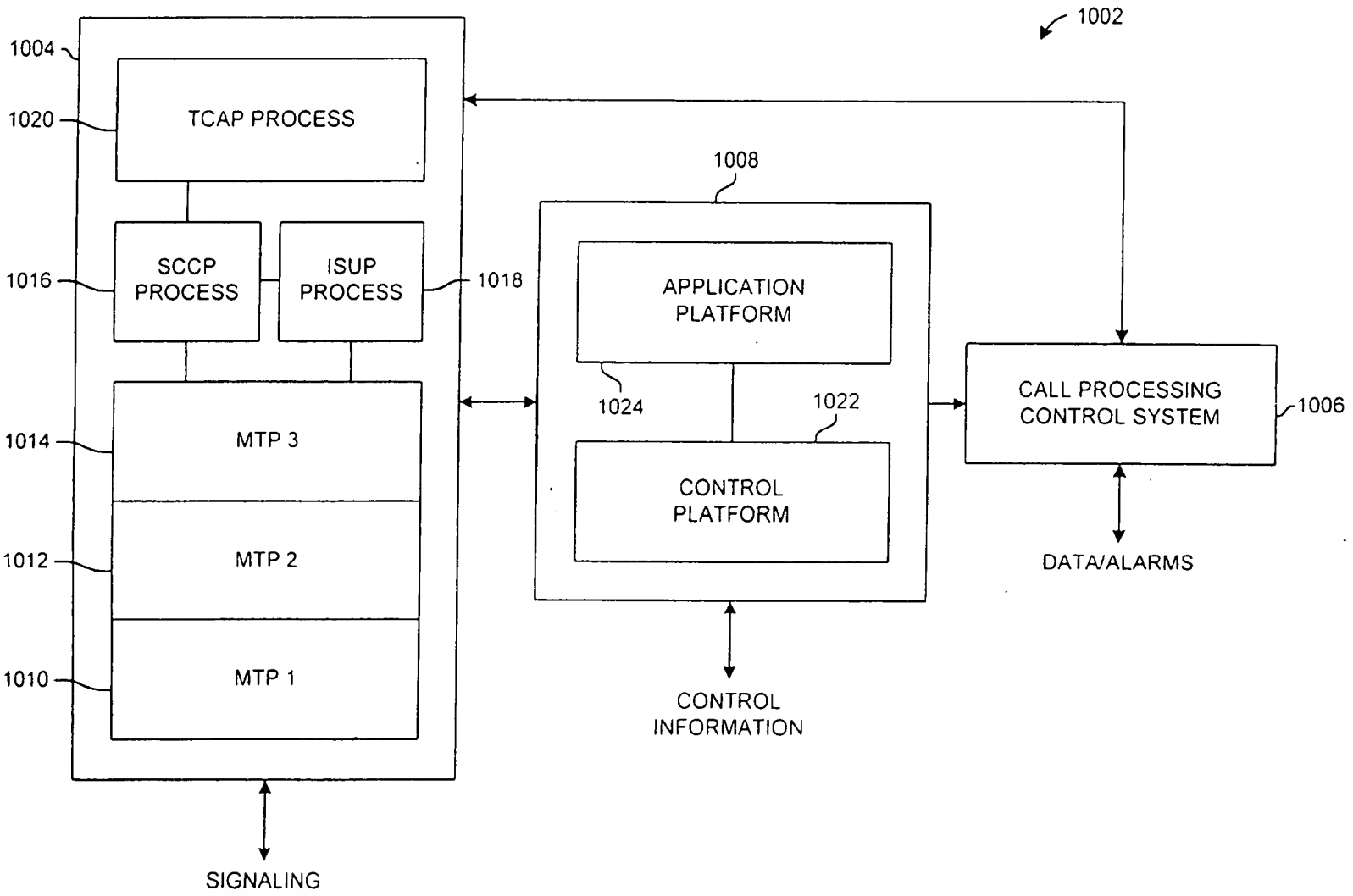
1002
1004
1020
TCAP PROCESS
1008
1016
SCCP PROCESS
ISUP PROCESS
1018
APPLICATION PLATFORM
1024
1022
CALL PROCESSING CONTROL SYSTEM
1006
1014
MTP 3
CONTROL PLATFORM
1012
MTP 2
DATA/ALARMS
1010
MTP 1
CONTROL INFORMATION
SIGNALING

FIG. 10

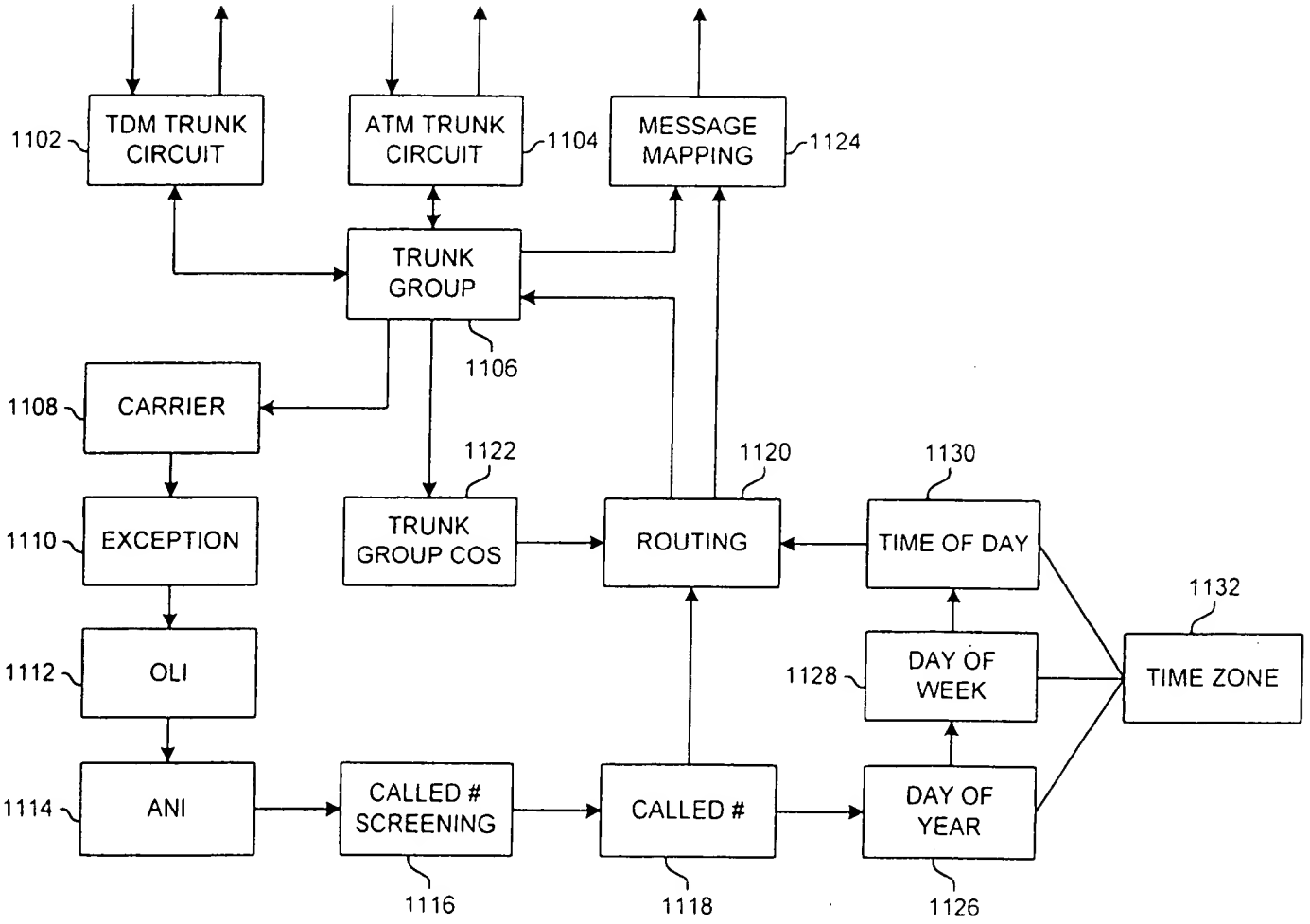
TDM TRUNK CIRCUIT
1102
ATM TRUNK CIRCUIT
1104
MESSAGE MAPPING
1124
TRUNK GROUP
1106
CARRIER
1108
EXCEPTION
1110
OLI
1112
ANI
1114
TRUNK GROUP COS
1122
ROUTING
1120
CALLED # SCREENING
1116
CALLED #
1118
TIME OF DAY
1130
DAY OF WEEK
1128
DAY OF YEAR
1126
TIME ZONE
1132

FIG. 11

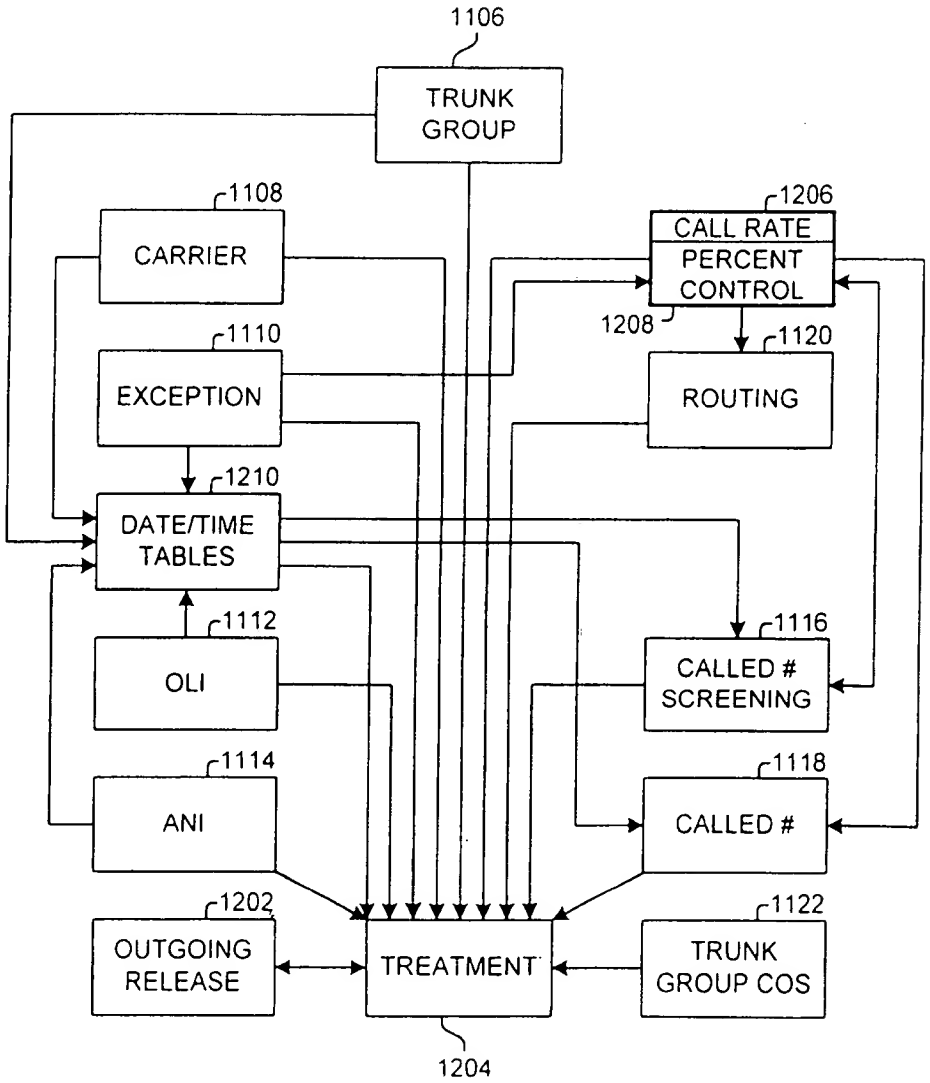
1106
TRUNK GROUP
1108
CARRIER
1206
CALL RATE PERCENT CONTROL
1208
1110
EXCEPTION
1120
ROUTING
1210
DATE/TIME TABLES
1112
OLI
1116
CALLED # SCREENING
1114
ANI
1118
CALLED #
1202
OUTGOING RELEASE
TREATMENT
1122
TRUNK GROUP COS
1204

FIG. 12

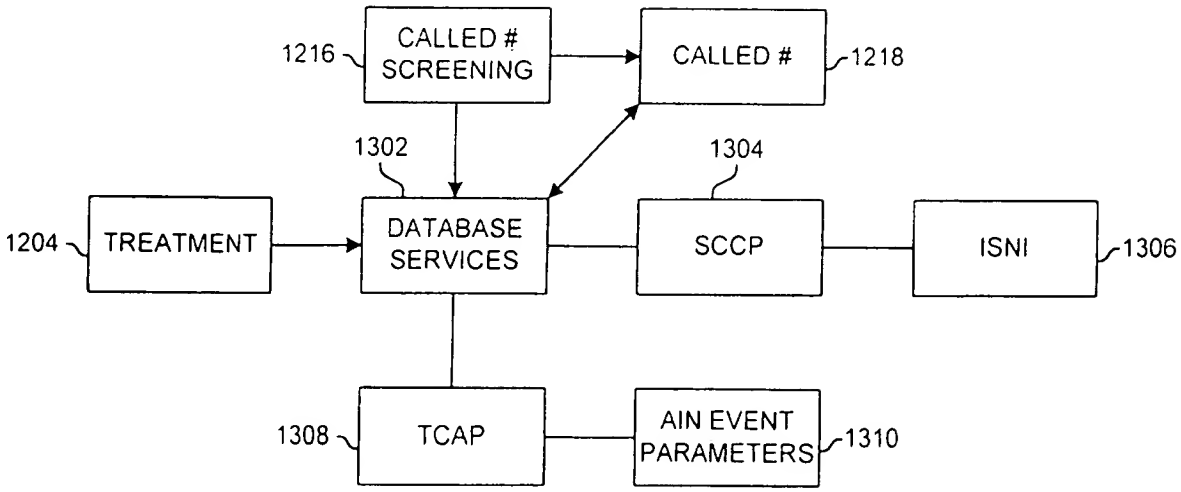
1216
CALLED # SCREENING
CALLED #
1218
1302
1304
1204
TREATMENT
DATABASE SERVICES
SCCP
ISNI
1306
1308
TCAP
AIN EVENT PARAMETERS
1310

FIG. 13

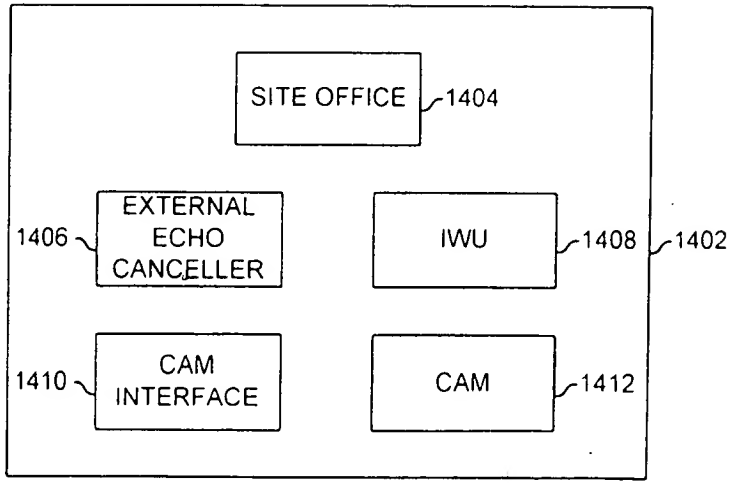
SITE OFFICE
1404
1406
EXTERNAL ECHO CANCELLER
IWU
1408
1402
1410
CAM INTERFACE
CAM
1412

FIG. 14

TRUNK GROUP NUMBER	GROUP MEMBER	TCIC	EC LABEL	IWU LABEL	IWU PORT	DS1/E1 LABEL	DS1/E1 CHANNEL	INITIAL STATE

FIG. 15

TRUNK GROUP NUMBER	GROUP SIZE	STARTING CIC	TRANSMIT INTERFACE LABEL	TRANSMIT VPI	RECEIVE INTERFACE LABEL	RECEIVE VPI	INITIAL STATE

FIG. 16

TRUNK GROUP NUMBER	ADMIN INFORMATION	ASSOCIATED POINT CODE	CLLI	TRUNK TYPE	ASSOCIATED NPA	ASSOCIATED JIP	TIME ZONE LABEL	ECHO CANCELLER INFORMATION

FIG. 17A

SATELLITE	SELECT SEQUENCE	IWU PRIORITY	GLARE RESOLUTION	CONTINUITY CONTROL	REATTEMPTS	IGNORE LNP INFORMATION	TREATMENT LABEL	MESSAGE MAPPING LABEL

FIG. 17B

QUEUE	RING NO ANSWER	VOICE PATH CUT THROUGH	ORIGINATING COS LABEL	TERMINATING COS LABEL	CALL CONTROL	NEXT FUNCTION	NEXT LABEL

FIG. 17C

CARRIER LABEL	CARRIER ID	CARRIER SELECTION	NEXT FUNCTION	NEXT LABEL

FIG. 18

EXCEPTION LABEL	CALLING PARTY'S CATEGORY	CALLED NUMBER			NEXT FUNCTION	NEXT LABEL
		NATURE OF ADDRESS	DIGITS FROM	DIGITS TO		

FIG. 19

OLI LABEL	ORIGINATION LINE INFORMATION	NEXT FUNCTION	NEXT LABEL

FIG. 20

ANI LABEL	CHARGE CALLING PARTY NUMBER		TIME ZONE LABEL	CUSTOMER INFORMATION	EC INFORMATION	QUEUE	TREATMENT LABEL	NEXT FUNCTION	NEXT LABEL
	DIGITS FROM	DIGITS TO							

FIG. 21

CALLED NUMBER SCREENING LABEL	CALLED NUMBER			DELETE DIGITS	NEXT FUNCTION	NEXT LABEL
	NATURE OF ADDRESS	DIGITS FROM	DIGITS TO			

FIG. 22

CALLED NUMBER LABEL	CALLED NUMBER			NEXT FUNCTION	NEXT LABEL
	NATURE OF ADDRESS	DIGITS FROM	DIGITS TO		

FIG. 23

DAY OF YEAR LABEL	DATE	NEXT FUNCTION	NEXT LABEL

FIG. 24

DAY OF WEEK	DAY FROM	DAY TO	NEXT FUNCTION	NEXT LABEL

FIG. 25

TIME OF DAY LABEL	TIME FROM	TIME TO	NEXT FUNCTION	NEXT LABEL

FIG. 26

TIME ZONE LABEL	UTC OFFSET	DAYLIGHT SAVINGS

FIG. 27

ROUTING LABEL	ROUTE NUMBER	NEXT FUNCTION	NEXT LABEL	SIGNAL ROUTE LABEL

FIG. 28

ORIGINATING TRUNK COS LABEL	TERMINATING TRUNK COS LABEL	NEXT FUNCTION	NEXT LABEL

FIG. 29

TREATMENT LABEL	ERROR/CAUSE LABEL	NEXT FUNCTION	NEXT LABEL

FIG. 30

OUTGOING RELEASE LABEL	OUTGOING CAUSE VALUE		
	LOCATION	CODING STANDARD	CAUSE VALUE

FIG. 31

PERCENT LABEL	CONTROL PERCENTAGE	CONTROL		PASSED	
		NEXT FUNCTION	NEXT LABEL	NEXT FUNCTION	NEXT LABEL

FIG. 32

CALL RATE LABEL	CALL RATE	CONTROL		PASSED	
		NEXT FUNCTION	NEXT LABEL	NEXT FUNCTION	NEXT LABEL

FIG. 33

DATABASE SERVICES LABEL	SERVICE TYPE	SCCP LABEL	TCAP LABEL	NEXT FUNCTION	NEXT LABEL

FIG. 34

SCCP LABEL	MESSAGE TYPE	PROTOCOL CLASS	MESSAGE HANDLING	HOP COUNTER	SEGMENTATION

FIG. 35A

ISNI			
ISNI TYPE	ROUTE INDICATOR	MARK INDICATOR	LABEL

FIG. 35B

CALLED PARTY ADDRESS										
ADDRESS INDICATOR					SUB SYSTEM NUMBER	POINT CODE NUMBER	GLOBAL TITLE			
SSN	POINT CODE	GLOBAL TITLE INDICATOR	ROUTING INDICATOR	NATIONAL/ INTERNATIONAL			TRANSLATION TYPE	ENCODE SCHEME	NUMBER PLAN	ADDRESS TYPE

FIG. 35C

CALLING PARTY ADDRESS										
ADDRESS INDICATOR					SUB	POINT	GLOBAL TITLE			
SSN	POINT CODE	GLOBAL TITLE INDICATOR	ROUTING INDICATOR	NATIONAL/ INTERNATIONAL	SYSTEM NUMBER	CODE NUMBER	TRANSLATION TYPE	ENCODE SCHEME	NUMBER PLAN	ADDRESS TYPE

FIG. 35D

ISNI LABEL	NETWORK 1	NETWORK 2	NETWORK 3	NETWORK	NETWORK 16

FIG. 36

TCAP LABEL	TCAP TYPE	TAG CLASS	PACKAGE TYPE	COMPONENT TYPE	MESSAGE TYPE

FIG. 37

ECHO CANCELLER LABEL	ECHO CANCELLER TYPE	RS-232 ADDRESS	MODULE

FIG. 38

IWU LABEL	IWU ID	IP SOCKET 1	IP SOCKET 2	IP SOCKET 3	IP SOCKET 4

FIG. 39

CAM INTERFACE LABEL	CAM LABEL	LOGICAL INTERFACE

FIG. 40

CAM LABEL	CAM TYPE	CAM ADDRESS

FIG. 41

OFFICE CLLI NAME	SITE NODE ID	ORIGINATION ID	SOFTWARE ID	CALL PROCESSOR ID

FIG. 42A

ACC ENABLED	ACL 1 ONSET	ACL 1 ABATE	ACL 2 ONSET	ACL 2 ABATE	ACL 3 ONSET	ACL 3 ABATE

FIG. 42B

MAX TRUNKS OHQ	OHQ TQ1	OHQ TQ2	RING NO ANSWER TIMER	BILLING ACTIVE	NWM ALLOW	BILLING FAILURE FREE CALL

FIG. 42C

MAX HOP COUNTS	MAX TABLE LOOKUPS

FIG. 42D

AIN EVENT PARAMETERS LABEL	MESSAGE NAME #1	MESSAGE NAME #....	MESSAGE NAME #N
ACCESS CODE			
ACG ENCOUNTERED			
ALTERNATE BILLING INDICATOR			
ALTERNATE TRUNK GROUP			
AMA ALTERNATE BILLING NUMBER			
AMA BUSINESS CUSTOMER ID			
AMA DIGITS DIALED WC			
AMA LINE NUMBER			
AMA SLPID			
AMP			
ANSWER INDICATOR			
BEARER CAPABILITY			
BUSY CAUSE			
CALLED PARTY ID			
CALLED PARTY STATION TYPE			
CALLING PARTY BGID			
CARRIER			
CHARGE NUMBER			
CHARGE PARTY STATION TYPE			
CLEAR CAUSE			
COLLECTED ADDRESS INFORMATION			
COLLECTED DIGITS			
CONTROLLING LEG TREATMENT			
DISCONNECT FLAG			
DISPLAY TEXT			
FACILITY GID (TRUNK GROUP ID)			
FACILITY GID (PRIVATE FACILITY GID)			
FACILITY GID (ROUTE INDEX)			
FACILITY MEMBER ID			
FAILURE CAUSE			
GENERIC NAME			
ISDN INTERFACE ID			
LATA			
ORIGINAL CALLED PARTY ID			
OUTPULSE NUMBER			
OVERFLOW BILLING NUMBER			
PASSIVE LEG TREATMENT			
PRIMARY BILLING INDICATOR			
PRIMARY CARRIER			
PRIMARY TRUNK GROUP			
REDIRECTING PARTY ID			
REDIRECTION INFORMATION			
RESOURCE TYPE			
SECOND ALTERNATE BILLING INDICATOR			
SECOND ALTERNATE CARRIER			
SECOND ALTERNATE TRUNK GROUP			
SPID			
STR PARAMETER BLOCK			

FIG. 43A

AIN EVENT PARAMETERS LABEL	MESSAGE NAME #1	MESSAGE NAME #....	MESSAGE NAME #N
TCM			
TRIGGER CRITERIA TYPE			
USER ID			
VERTICAL SERVICE CODE			
APPLICATION ERROR STRING			
ERROR CAUSE			
FAILED MESSAGE			
CONNECT TIME			
CONTROL CAUSE INDICATOR			
ECHO DATA			
FACILITY STATUS			
GAP DURATION			
GAP INTERVAL (NATIONAL GAP INTERVAL)			
GAP INTERVAL (PRIVATE GAP INTERVAL)			
GLOBAL TITLE VALUE			
MONITOR TIME			
STATUS CAUSE			
TERMINATION INDICATOR			
TRANSLATION TYPE			
TRIGGER CRITERIA FLAG			

FIG. 43B

MESSAGE TYPE	PARAMETERS	INDEX #1	INDEX #....	INDEX #N
ADDRESS COMPLETE	BACKWARD CALL INDICATOR			
	ACCESS TRANSPORT			
	CAUSE INDICATOR			
	PRIVATE OPTIONAL			
ANSWER	ACCESS TRANSPORT			
	BACKWARD CALL INDICATOR			
	PRIVATE OPTIONAL			
CALL PROGRESS	NOTIFICATION			
	BACKWARD CALL INDICATOR			
	ACCESS TRANSPORT			
	CAUSE INDICATOR			
	BACKWARD CALL INDICATOR			
CIRCUIT VALIDATION RESPONSE MESSAGE	CIRCUIT ID NAME			
	CLLI CODE			
CONTINUITY	CONTINUITY INDICATOR			
EXIT	DISPOSITION			
	TRUNK GROUP NUMBER			
	SEND BACK EXIT MESSAGE			
INITIAL ADDRESS	FORWARD CALL INDICATOR			
	CALLING PARTY'S CATEGORY			
	GENERIC ADDRESS PARAMETER (LNP)			
	CALLED PARTY NUMBER			
	CALLING PARTY NUMBER			
	GENERIC DIGITS			
	CHARGE NUMBER			
	ORIGINATING LINE INFORMATION			
	TRANSIT NETWORK SELECTION			
	CARRIER SELECTION INFORMATION			
	ORIGINATING LINE INFORMATION			
	SERVICE CODE			
	CARRIER IDENTIFICATION			
	ORIGINAL CALLED NUMBER			
	REDIRECTING NUMBER			
	REDIRECTION INFORMATION			
	GENERIC ADDRESS (NON-LNP)			
	ACCESS TRANSPORT			
	HOP COUNTER			
	JURISDICTION INFORMATION			
RELEASE	ACCESS TRANSPORT			
	AUTOMATIC CONGESTION CONTROL			

FIG. 44